

IN THE CLAIMS

1 (Currently Amended). A method comprising:

providing current to a laser diode of an optical communication system using a transistor coupled in series with said laser diode between a power supply voltage and ground; and

providing a first and a second resistance-coupled in series, the ratio of the first to the second resistance being a matching resistance and the first and second resistances are both greater than said matching resistance.

2 (Original). The method of claim 1 including providing a differential output stage coupled to drive said transistor.

3 (Original). The method of claim 2 including providing a differential output stage coupled to gate drive said transistor.

4 (Original). The method of claim 2 including providing a differential output stage to base drive said transistor.

5 (Original). The method of claim 1 including providing an AC coupled matching resistor.

6 (Original). The method of claim 1 including providing parallel matching resistors coupled to said transistor.

7 (Currently Amended). A method comprising:

forming a direct modulation laser driver including a transistor coupled between a power supply and a laser diode;

coupling said transistor to be driven by a differential output stage; and

providing a first and a second resistance-coupled in series, the ratio of the first to the second resistance being a matching resistance and the first and second resistances are both greater than said matching resistance.

8 (Original). The method of claim 7 wherein forming a direct modulation laser driver including a transistor includes forming a driver including a field effect transistor having its gate coupled to said differential output stage.

9 (Original). The method of claim 7 wherein forming a direct modulation laser driver including a transistor includes forming a driver including a bipolar transistor having its base coupled to said differential output stage.

10 (Original). The method of claim 7 including AC coupling a shunt resistor to said transistor.

11 (Original). The method of claim 7 including providing a pair of parallel shunt resistors coupled to said transistor.

12 (Currently Amended). A driver for a direct modulation laser comprising:
a differential output stage;
a transistor driven by said differential output stage, said transistor coupled between a power supply and ground;
a laser diode coupled in series with said transistor; and
a first and second resistance coupled to said transistor, the ratio of the first to the second resistance being a matching resistance and the first and second resistance both being greater than the matching resistance, said resistances coupled in series as a voltage divider, a node between said resistances coupled to said transistor.

13 (Original). The driver of claim 12 wherein said transistor is a field effect transistor having its gate coupled to said differential output stage.

14 (Original). The driver of claim 12 wherein said transistor is a bipolar transistor having a base coupled to said differential output stage.

15 (Original). The driver of claim 12 including a pair of parallel shunt resistors coupled to said transistor.

16 (Original). The driver of claim 12 including a shunt resistor AC coupled to said transistor.

17 (Currently Amended). A system comprising:

a media access control; and

a laser driver coupled to said media access control, said laser driver including a differential output stage, a transistor driven by said differential output stage, said transistor coupled between a power supply and ground, and a laser diode coupled in series with said transistor, a first and second resistance coupled to said transistor, the ratio of the first to the second resistance being a matching resistance and the first and second resistance both being greater than the matching resistance, said resistances coupled in series as a voltage divider, a node between said resistances coupled to said transistor.

18 (Original). The system of claim 17 wherein said transistor is a field effect transistor having its gate coupled to said differential output stage.

19 (Original). The system of claim 17 wherein said transistor is a bipolar transistor having a base coupled to said differential output stage.

20 (Original). The system of claim 17 including a pair of parallel shunt resistors coupled to said transistor.

21 (Original). The system of claim 17 including a shunt resistor AC coupled to said transistor.

22 (Previously Presented). The method of claim 1 including providing said first and second resistance in a voltage divider with a node between said resistances coupled to the gate of said transistor.

23 (Previously Presented). The method of claim 7 including coupling the gate of said transistor to a node between said first and second resistances.